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REMARKS

Claims 5-10 are pending in this application. By this amendment, Applicants amend claims 8-10 and cancel claims 1-4 and 15-18.

Claim 18 was rejected under 35 U.S.C. § 102(b) as being anticipated by MacDonald et al. (U.S. 5,362,940) or JP 10-34365 (JP '365). In addition, Claims 1-4, 9, 10, 15 and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by Yamamoto et al. (U.S. 6,172,330). Claims 1, 4, 8, 15 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. in view of Anderson (U.S. 3,770,529), Saunders (U.S. 3,742,182) or Yamamoto et al. Furthermore, claims 2, 3 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. in view of Yamamoto et al. Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. in view of Yamamoto et al., and further in view of JP 2-766173 (JP '173). In addition, claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto et al. in view of JP '173. Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. in view of Yamamoto et al., and further in view of Funami et al. (U.S. 5,055,653). Claims 5 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. in view of Yamamoto et al., and further in view of Funami et al. and White, Jr. (U.S. 5,367,143). In addition, claims 1-4, 8 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 10-34365 (JP '365) in view of JP 10-242617 (JP '617). Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '365. Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '365 in view of JP '617, and further in view of Funami et al. And finally, claims 5 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '365 in view of JP '617, and further in view of Funami et al. and White, Jr.

Since claims 1-4 and 15-18 have been canceled and claims 8-10 have been amended to depend upon claim 5, Applicants respectfully submit that the prior art rejections of claims 1-4, 8-10 and 15-18 are moot.

Applicants submit herewith a Declaration under 37 C.F.R. § 1.131 which indicates that Mr. Takahiko Yamamoto and Mr. Tadashi Morimoto invented all of the

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common subject matter disclosed in U.S. 6,172,330, and all of the subject matter disclosed in U.S. 6,172,330 which was relied upon in the prior art rejection of the claims in the present application. Accordingly, Applicants respectfully submit that Yamamoto et al. (U.S. 6,172,330) is disqualified as prior art in the present application. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 6 over MacDonald et al. in view of Yamamoto et al., and further in view of Funami et al., and the rejection of claims 5 and 7 over MacDonald et al. in view of Yamamoto et al., and further in view of Funami et al. and White, Jr.

Claim 5 recites:

"A method for machining a ceramic green sheet for forming a plurality of feedthrough holes on the ceramic green sheet, comprising:
disposing a laser source for emitting a pulse laser beam, a diffraction grating for splitting the laser beam into plural laser beams, a **galvano-scan mirror for allowing the plural laser beams to reflect with a predetermined reflection angle**, a converging lens for individually converging the plural laser beams reflected from the galvano-scan mirror, and the ceramic green sheet so as to be arranged in a predetermined position;

passing the laser beam emitted from the laser source through the diffraction grating to split the laser beam into plural laser beams;

irradiating the plural laser beams on the ceramic green sheet by allowing the plural laser beams to reflect with a galvano-scan mirror to simultaneously form a plurality of feedthrough holes within a desired area on the ceramic green sheet; and

repeatedly irradiating the ceramic green sheet with the plural laser beams by changing reflection angles of the galvano-scan mirror to form a plurality of feedthrough holes within a different area on the ceramic green sheet." (Emphasis added)

Claim 6 recites method steps that are similar to the method steps recited in claim 5, including the emphasized features.

The Examiner acknowledged that JP '365, JP '617 and Funami et al. fail to teach or suggest reflecting a plurality of laser beams and a galvano-scan mirror. However, the Examiner alleged that White, Jr. teaches a laser process including providing a laser beam 1, splitting said laser beam into a plurality of beams 4 and reflecting said plurality of laser beams 4 off a mirror onto the part to be machined, and further, that since White,

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Jr. teaches that "any reflecting type of mirror (col. 4, lines 30-33), it is submitted that White, Jr. teaches a galvano-scan mirror." Thus, the Examiner concluded that it would have been obvious "to have reflected the plurality of laser beams off a mirror (galvano-scan mirror) prior to impinging the part to be machined as taught by White, Jr. ('143) in the process of JP 10-34365 in view of JP 10-242617 and further in view of Funami et al. ('653)". Applicants respectfully disagree.

Funami et al. teaches that a single laser beam is reflected off the mirror 7 before the laser beam is split into plural laser beams by the converging optical converging unit 8. In contrast, White, Jr. teaches that the single laser beam 1 is split into plural laser beams 4 by a beam altering means 2 and then the plural laser beams are reflected by reflecting means 5. In other words, the single laser beam 1 is reflected off the reflecting means 5 after the laser beam 1 is split into plural laser beams.

Thus, the apparatus of White, Jr. includes a completely different combination and arrangement of elements from that of Funami et al. Due to this completely different combination and arrangement of elements, the apparatus of White, Jr. operates in an entirely different manner from that of Funami et al. Accordingly, there would have been absolutely no motivation to combine the features and method steps of White, Jr. with Funami et al. It is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Wesslau, 353 F.2d 238, 241, 147 USPQ 391 (CCPA 1965).

In addition, contrary to the Examiner's allegation, col. 4, lines 30-33 of White, Jr. discloses that "the reflecting means may be a mirror or any other material reflective to the wavelength of radiation produced by the radiation source," and does NOT teach or suggest that any type of reflective mirror may be used. In contrast, White, Jr. merely discloses that any suitable reflective material can be used. Thus, contrary to the Examiner's allegation White, Jr. clearly fails to teach or suggest a galvano-scan mirror as recited in the present claimed invention.

Prior art rejections must be based on evidence. Graham v. John Deere Co.,

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383 U.S. 117 (1966). Pursuant to MPEP 706.02(a), the Examiner is hereby requested to cite a reference in support of his position that it was well known at the time of Applicants' invention to include a galvano scan mirror in a laser apparatus. If the rejection is based on facts within the personal knowledge of the Examiner, the data should be supported as specifically as possible and the rejection must be supported by an affidavit from the Examiner, which would be subject to contradiction or explanation by affidavit of Applicants or other persons. See 37 C.F.R. §1.107(b).

Furthermore, there would have been absolutely no reason to provide a galvano-scan mirror in the apparatus of White, Jr. because the reflecting means of White, Jr. is fixed so as to reflect the plural laser beams perpendicularly to the substrate. In fact, since the reflecting means of White, Jr. is fixed, White, Jr. teaches away from a galvano-scan mirror which provides for adjustment of the reflecting angle of laser beams. It is error to find obviousness where references diverge and teach away from the invention at hand. W.L. Gore & Assoc. v. Garlock Inc., 721 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983).

Even assuming *arguendo* that White, Jr. teaches or suggest a galvano-scan mirror, since the reflecting means of White, Jr. is fixed at a predetermined angle, White, Jr. clearly fails to teach or suggest the method step of "repeatedly irradiating the ceramic green sheet with the plural laser beams by **changing reflection angles of the galvano-scan mirror** to form a plurality of feedthrough holes within a different area on the ceramic green sheet" (emphasis added) as recited in the present claimed invention.

Accordingly, Applicants respectfully submit that JP '365, JP '617, Funami et al. and White, Jr., taken individually or in combination, fail to teach or suggest the unique combination of method steps recited in claims 5 and 6 of the present application.

In view of the foregoing amendments and remarks, Applicants respectfully submit that Claims 5 and 6 are allowable over the prior art for the reasons described above. Claims 7-10 are dependent upon Claim 5, and are therefore allowable for at least the reasons that Claim is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this Application is in condition for allowance. Favorable consideration and prompt

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allowance are respectfully solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: January 2, 2003


Attorneys for Applicant

Joseph R. Keating
Registration No. 37,368

Christopher A. Bennett
Registration No. 46,710

KEATING & BENNETT LLP
10400 Eaton Place, Suite 312
Fairfax, VA 22030
Telephone: (703) 385-5200
Facsimile: (703) 385-5080

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VERSION WITH MARKINGS SHOWING CHANGES MADE

8. A method for machining a ceramic green sheet according to Claim [1] 5, wherein the diffraction grating is made of a material which is substantially transparent to the laser beam.

9. A method for machining a ceramic green sheet according to Claim [1] 5, wherein the laser source is a CO₂ laser.

10. A method for machining a ceramic green sheet according to Claim [1] 5, wherein the ceramic green sheet is provided with a carrier film for supporting one face of the ceramic green sheet.